YOLO-SOLANO AIR QUALITY MANAGEMENT DISTRICT

1947 Galileo Court , Suite 103; Davis, CA 95618

Diesel Fired Emergency Internal Combustion Engine
Emission Evaluation and Statement of Basis Addendum

ENGINEER: Kyle Rohlfing

ATC # C-11-14
SIC Code # 9223
UTM E 589.4 km
UTM N 4241.6 km

COMPANY NAME: California State Prison - Solano

ENGINE LOCATION: The engine is located at 2100 Peabody Road in Vacaville. The engine is not located within 1,000 feet of a K-12 school and is not subject to the requirements of H&S 42301.6.

PROPOSAL: The applicant is proposing to modify P-28-95 to increase maintenance and testing hours of operation for the engine.

PROCESS: The engine is used to power an emergency generator

FLOW DIAGRAM: None required.

EQUIPMENT: 940 BHP diesel fired Mitsubishi IC engine, Model No. S12A2PT, Serial No. 10884, Model Year 1985, Non-Certified Engine

CONTROL EQUIPMENT: Aftercooler and turbocharger

APPLICATION DATA:

Operating Schedule		Units	Formula Symbol	Reference
Max. Daily Operation =	24	hours/day	Td	Applicant
Max. 1st Quarter Operation =	200	hours/quarter	T1	Applicant
Max. 2nd Quarter Operation =	200	hours/quarter	T2	Applicant
Max. 3rd Quarter Operation =	200	hours/quarter	T3	Applicant
Max. 4th Quarter Operation =	200	hours/quarter	T4	Applicant
Max. Yearly Operation =	200	hours/year	Ty	Applicant

Engine Data		Units	Formula Symbol	Reference
Maximum BHP Rating =	940	BHP	HP	Manufacturer's Data
Exhaust Volume =	5,880	ACFM	EV	Manufacturer's Data
Exhaust Temperature =	1,660	Degrees Rankine (F+460)	ET	Manufacturer's Data
Hourly Fuel Consumption =	46.0	Gallons	FT	Manufacturer's Data

ASSUMPTIONS:

		Units	Formula Symbol	Reference
Sulfur Content of Fuel =	0.0015	%	SC	CARB Certified Diesel
Standard Temperature =	528	Degrees Rankine (F+460)	ST	STAPPA-ALAPCO, Pg. 1-7 (5/30/91)
Moisture Content =	10	%	PM	STAPPA-ALAPCO, Pg. 1-7 (5/30/91)
BTU Content =	19,300	BTU/lb	BC	AP-42, Table 3.4-1(a) (10/96)
Density =	7.1	lb/gallon	DE	AP-42, Table 3.4-1(a) (10/96)
Mass Conversion =	453.6	g/lb	GM	District

Diesel Particulate Control		Units	Formula Symbol	Reference
Particulate Controls =	No			Applicant
Baseline Reduction =	0	%	CE	Manufacturer's Data

EMISSION FACTORS:

		Units	Formula Symbol	Reference
VOC =	0.99	g/bhp-hr	EFvoc	Original Eval P-28-95
CO =	2.26	g/bhp-hr	EFco	Original Eval P-28-95
NOx =	10.41	g/bhp-hr	EFnox	Original Eval P-28-95
SOx =	0.0055	g/bhp-hr	EFsox	AP-42, Table 3.4-1 (10/96) *
TSP/PM10 =	0.74	g/bhp-hr	EFpm	Original Eval P-28-95**

* Only the emission factor listed in Table 3.4-1 is used since it assumes all fuel bound sulfur is converted to SOx.
** All particulate matter is assumed to be less than 1 micrometer aerodynamic diameter (AP-42, Section 3.3). Emission factor in g/bhp-hr calculated from factor given in lb/gal as (0.0335 lb/gal) * FT * GM / HP

CALCULATIONS:

1. Determine the Permitted Diesel Fuel Limits:

Daily Diesel Limit = Td * FT = 1,104 gallons
1st Quarter Diesel Limit = T1 * FT = 9,200 gallons

2nd Quarter Diesel Limit = T2 * FT = 9,200 gallons
3rd Quarter Diesel Limit = T3 * FT = 9,200 gallons
4th Quarter Diesel Limit = T4 * FT = 9,200 gallons
Yearly Diesel Limit = Ty * FT = 9,200 gallons

2. Determine Dry Standard Cubic Feet of Exhaust: **Formula Symbol**

DSCFM Exhaust = EV * ST/ET * (100%-PM) = 1,683.2 dscfm SCFM

3. Determine Yearly MMBtu combusted in Engine for Toxics:

Yearly MMBtu = Ty * FT * DE * BC * (1 MMBtu/1,000,000 Btu) = 1,260.7 MMBtu/year

EMISSION CALCULATIONS:

1. Determine VOC Emissions:

Max Daily VOC Emissions = Td * HP * EFvoc * (1 lb/453.6 g) = 49.1 lb/day
1st Quarter VOC Emissions = T1 * HP * EFvoc * (1 lb/453.6 g) = 409 lb/quarter
2nd Quarter VOC Emissions = T2 * HP * EFvoc * (1 lb/453.6 g) = 409 lb/quarter
3rd Quarter VOC Emissions = T3 * HP * EFvoc * (1 lb/453.6 g) = 409 lb/quarter
4th Quarter VOC Emissions = T4 * HP * EFvoc * (1 lb/453.6 g) = 409 lb/quarter
Max Yearly VOC Emissions = Ty * HP * EFvoc * (1 lb/453.6 g) * (1 ton/2,000 lb) = 0.20 tons/year

2. Determine CO Emissions:

Max. Daily CO Emissions = Td * HP * EFco * (1 lb/453.6 g) = 112.6 lb/day
1st Quarter CO Emissions = T1 * HP * EFco * (1 lb/453.6 g) = 938 lb/quarter
2nd Quarter CO Emissions = T2 * HP * EFco * (1 lb/453.6 g) = 938 lb/quarter
3rd Quarter CO Emissions = T3 * HP * EFco * (1 lb/453.6 g) = 938 lb/quarter
4th Quarter CO Emissions = T4 * HP * EFco * (1 lb/453.6 g) = 938 lb/quarter
Max. Yearly CO Emissions = Ty * HP * EFco * (1 lb/453.6 g) * (1 ton/2,000 lb) = 0.47 tons/year

3. Determine NOx Emissions:

Max. Hourly NOx Emissions = HP * EFnox * (1 lb/453.6 g) = 21.57 lb/hour
Max. Daily NOx Emissions = Td * HP * EFnox * (1 lb/453.6 g) = 517.8 lb/day
1st Quarter NOx Emissions = T1 * HP * EFnox * (1 lb/453.6 g) = 4,315 lb/quarter
2nd Quarter NOx Emissions = T2 * HP * EFnox * (1 lb/453.6 g) = 4,315 lb/quarter
3rd Quarter NOx Emissions = T3 * HP * EFnox * (1 lb/453.6 g) = 4,315 lb/quarter
4th Quarter NOx Emissions = T4 * HP * EFnox * (1 lb/453.6 g) = 4,315 lb/quarter
Max. Yearly NOx Emissions = Ty * HP * EFnox * (1 lb/453.6 g) * (1 ton/2,000 lb) = 2.16 tons/year

4. Determine SOx Emissions:

Max. Hourly SOx Emissions = HP * EFsox * (1 lb/453.6 g) = 0.01 lb/hour
Max. Daily SOx Emissions = Td * HP * EFsox * (1 lb/453.6 g) = 0.3 lb/day
1st Quarter SOx Emissions = T1 * HP * EFsox * (1 lb/453.6 g) = 2 lb/quarter
2nd Quarter SOx Emissions = T2 * HP * EFsox * (1 lb/453.6 g) = 2 lb/quarter
3rd Quarter SOx Emissions = T3 * HP * EFsox * (1 lb/453.6 g) = 2 lb/quarter
4th Quarter SOx Emissions = T4 * HP * EFsox * (1 lb/453.6 g) = 2 lb/quarter
Max. Yearly SOx Emissions = Ty * HP * EFsox * (1 lb/453.6 g) * (1 ton/2,000 lb) = 0.00 tons/year

5. Determine TSP/PM10 Emissions:

Max. Hourly TSP/PM10 Ems. = HP * EFpm * (1 lb/453.6 g) * (100%-CE) = 1.54 lb/hour
Max. Daily TSP/PM10 Ems. = Td * HP * EFpm * (1 lb/453.6 g) * (100%-CE) = 37.0 lb/day
1st Quarter TSP/PM10 Ems. = T1 * HP * EFpm * (1 lb/453.6 g) * (100%-CE) = 308 lb/quarter
2nd Quarter TSP/PM10 Ems. = T2 * HP * EFpm * (1 lb/453.6 g) * (100%-CE) = 308 lb/quarter
3rd Quarter TSP/PM10 Ems. = T3 * HP * EFpm * (1 lb/453.6 g) * (100%-CE) = 308 lb/quarter
4th Quarter TSP/PM10 Ems. = T4 * HP * EFpm * (1 lb/453.6 g) * (100%-CE) = 308 lb/quarter
Yearly TSP/PM10 Ems. = Ty * HP * EFpm * (1 lb/453.6 g) * (1 ton/2,000 lb) * (100%-CE) = 0.15 tons/year

6. Determine Particulate Matter Emission Concentration:

PM Conc. = [PM lb/hr] * (7,000 grains/lb) * (1 hr/60 min) * (1/SCFM) = 0.1 gr/dscf

7. Determine SOx Emission Concentration:

SOx % = [SOx lb/hr] * (385 scf/lb-mole) * (lb-mole/64 lb) * (1 hr/60 min) * (1/SCFM) * 100% = 0.0001 %

8. Determine Particulate Matter Emission Rate: **Formula Symbol**

PM Emission Rate = Ty * HP * EFpm * (1 year/8,760 hrs) * (1 hr/3,600 sec) * (100%-CE) = 0.0044 grams/sec ER

RULE & REGULATION COMPLIANCE EVALUATION:

District Rule 2.3-Ringelmann
The version of the rule used in this evaluation is the rule adopted on October 1, 1971, and is part of the California State Implementation Plan (SIP). The source is currently in compliance with the requirements of the rule.

1. Requirement: The Permit Holder shall not discharge into the atmosphere from any single source of emission whatsoever, any air contaminant for a period or periods aggregating more than three (3) minutes in any one (1) hour which is:
a. As dark or darker in shade as that designated as No. 2 on the Ringelmann Chart as published by the United States Bureau of Mines; or
b. Of such opacity as to obscure an observer's view to a degree equal to or greater than does smoke described in subsection a. of this condition. [District Rule 2.3]

Subsuming Demonstration: The requirements of the rule can be streamlined by a Rule 3.4, New Source Review condition

Permit condition: The Permit Holder shall not discharge into the atmosphere any air contaminant for a period or periods aggregating more than 3 minutes in any one hour which is:
a. As dark or darker in shade than No. 1 on the Ringelmann Chart; or
b. Greater than 20% opacity. [District Rule 3.4/C-11-14]

District Rule 2.5-Nuisance
The operation is expected to comply with the rule requirement of no discharge which causes injury, detriment, nuisance, or annoyance to any considerable number of persons or the public. A condition will not be placed on the ATC, but will be added to the PTO upon implementation.

District Rule 2.11-Particulate Matter
This rule was updated 1/13/10, however the rule has not yet been approved as part of the SIP, therefore the previous (SIP-approved) version was evaluated here.
1. Requirement:

Emission Rate (gr/dscf)	Allowable Rate (gr/dscf)	Compliance
0.1	0.1	Yes

Subsuming Demonstration: The above emission rate was calculated using the daily pm10 emission limit for Rule 3.4, New Source Review. The Rule 3.4 requirement of 0.1 gr/dscf will subsume the rule 2.11 requirement of 0.3 gr/dscf.

Subsuming Condition: The PM10 emissions from the engine shall not exceed 37.0 lb/day, 308 lb/1st calendar quarter, 308 lb/2nd calendar quarter, 308 lb/3rd calendar quarter, 308 lb/4th calendar quarter, and 0.15 tons/calendar year. [District Rule 3.4/C-11-14]

District Rule 2.12, Section A-Sulfur Compounds
This rule was updated 1/13/10, however the rule has not yet been approved as part of the SIP, therefore the previous (SIP-approved) version was evaluated here.
1. Requirement:

Emission Rate (% SOx as SO2)	Allowable Rate (% SOx as SO2)	Compliance
0.0001	0.2	Yes

Subsuming Demonstration: The emissions of sulfur oxides will be limited to the evaluated rates under Rule 3.4, New Source Review. The Rule 3.4 requirement of 0.0001% will subsume the rule 2.11 requirement of 0.2%.

Subsuming Condition: The SOx emissions from the engine shall not exceed 0.3 lb/day, 2 lb/1st calendar quarter, 2 lb/2nd calendar quarter, 2 lb/3rd calendar quarter, 2 lb/4th calendar quarter, and negligible tons/calendar year. [District Rule 3.4/C-11-14]

District Rule 2.16 - Fuel Burning or Power Generation
The version of the rule used in this evaluation is the rule adopted on October 1, 1971, and is part of the California State Implementation Plan (SIP). The source is currently in compliance with the requirements of the rule.
1. Requirement:

Pollutant	Allowable		Actual		Compliance
SOx	**200**	lb/hr	0.01	lb/hr	**Yes**
NOx	**140**	lb/hr	21.57	lb/hr	**Yes**
PM	**40**	lb/hr	1.54	lb/hr	**Yes**

Subsuming Demonstration: The emissions of pollutants will be limited to the evaluated rates under Rule 3.4, New Source Review. The Rule 3.4 requirements will subsume the rule 2.16 requirements.

Subsuming Conditions:
The SOx emissions from the engine shall not exceed 0.3 lb/day, 2 lb/1st calendar quarter, 2 lb/2nd calendar quarter, 2 lb/3rd calendar

quarter, 2 lb/4th calendar quarter, and negligible tons/calendar year. [District Rule 3.4/C-11-14]

The NOx emissions from the engine shall not exceed 517.8 lb/day, 4,315 lb/1st calendar quarter, 4,315 lb/2nd calendar quarter, 4,315 lb/3rd calendar quarter, 4,315 lb/4th calendar quarter, and 2.16 tons/calendar year. [District Rule 3.4/C-11-14]

The PM10 emissions from the engine shall not exceed 37.0 lb/day, 308 lb/1st calendar quarter, 308 lb/2nd calendar quarter, 308 lb/3rd calendar quarter, 308 lb/4th calendar quarter, and 0.15 tons/calendar year. [District Rule 3.4/C-11-14]

District Rule 2.32-Stationary Internal Combustion Engines
This rule was adopted 10/10/01 and is included in the SIP. As shown below, the source is in compliance with the requirements of the rule. The engine will have limited hours per year for maintenance operations and 200 hours per year for total use, and is therefore exempt from the rule (except Section 503) pursuant to Section 110.3. Section 503 requires that the source maintain a log of the engine's operating hours and that the log be retained for two years. This requirement will be superseded by the recordkeeping requirement of the Airborne Toxic Control Measure (see below).

1. **Requirement:** An owner or operator claiming an exemption under Sections 110.2 or 110.3 of this Rule shall maintain a log of operating hours for each engine. The log of operating hours shall be retained for two years and be made available to the Air Pollution Control Officer upon requeest.

Subsuming Demonstration: The record keeping requirement is less restrictive than the record keeping requirements of applicable regulations of the State of California. A more stringent record keeping condition will be added to the permit and made federally enforceable by the authority ot Rule 3.4, New Source Review. A more stringent record retention condition is required by District Rule 3.8, Federal Operating Permits.

Subsuming Conditions:
The owner or operator is required to maintain a monthly log that lists the following information: emergency hours of operation, maintenance and testing hours of operation, emission testing hours of operation, initial startup hours, and fuel use through fully documented purchase records. [Title 17 CCR Section 93115 and District Rule 3.4/C-11-14]

All required records shall be retained for a minimum of five (5) years and shall be made available for District inspection upon request. [District Rule 3.8, section 302.6(b)/C-11-14]

District Rule 3.4-New Source Review

PROPOSED EMISSION SUMMARY FOR NEW OR MODIFIED PERMIT

	Daily	Yearly	
VOC	49.1 lb	0.20 tons	Use for annual billing
CO	112.6 lb	0.47 tons	Use for annual billing
NOx	517.8 lb	2.16 tons	Use for annual billing
SOx	0.3 lb	0.00 tons	Use for annual billing
PM10	37.0 lb	0.15 tons	Use for annual billing

	Quarterly			
	1st	2nd	3rd	4th
VOC (lb)	409	409	409	409
CO (lb)	938	938	938	938
NOx (lb)	4,315	4,315	4,315	4,315
SOx (lb)	2	2	2	2
PM10 (lb)	308	308	308	308

Previous quarterly potential to emit for modified permit*

	1st	2nd	3rd	4th
VOC (lb)	25	25	25	25
CO (lb)	56	56	56	56
NOx (lb)	259	259	259	259
SOx (lb)	4	4	4	4
PM10 (lb)	18	18	18	18

* From PTO P-28-95

Historic potential emissions for modified permit*

	1st	2nd	3rd	4th
VOC (lb)	25	25	25	25
CO (lb)	56	56	56	56
NOx (lb)	259	259	259	259
SOx (lb)	4	4	4	4
PM10 (lb)	18	18	18	18

* The throughput report from 2009 documented 815 gallons of diesel fuel, which was 148 % of permitted throughput. Therefore, because the historic emissions are over 80% in at least one year out of the last five, the historic potential equals the previous potential to emit.

Pollutant	Trigger (lb/day)	BACT Proposed (lb/day)	Quarterly Increase	BACT Trigger
VOC	10	49	No*	No
CO	250	113	No*	No
NOx	10	518	No*	No
SOx	80	0	No*	No
PM10	80	37	No*	No

* The engine was previously limited by the permit only in the hours for maintenance and testing operation with no limit for emergency use operation. Because the modified permit will now limit operation for any reason to 200 hours per year, the District expects there will not be a quarterly increase in potential to emit for any pollutant.

OFFSETS

Quarterly permitted emissions for other permits at the stationary source*

	1st	2nd	3rd	4th
VOC (lb)	19,839	19,946	20,142	20,096
CO (lb)	44,306	44,612	44,918	44,918
NOx (lb)	35,187	35,515	35,781	35,781
SOx (lb)	499	507	510	510
PM10 (lb)	4,621	4,658	4,709	4,700

* Per Policy 28, the calculated PTE for all other permitted units not including emergency-use IC engines.

Quarterly permitted emissions for the stationary source including proposed emissions*

	1st	2nd	3rd	4th
VOC (lb)	19,839	19,946	20,142	20,096
CO (lb)	44,306	44,612	44,918	44,918
NOx (lb)	35,187	35,515	35,781	35,781
SOx (lb)	499	507	510	510
PM10 (lb)	4,621	4,658	4,709	4,700

* Per Policy 28, since the proposed IC engine is to be used for emergency purposes, the unit's proposed PTE will not be included in the facility's total quarterly PTE calculations.

Offset triggers

	1st	2nd	3rd	4th
VOC (lb)	7,500	7,500	7,500	7,500
CO (lb)	49,500	49,500	49,500	49,500
NOx (lb)	7,500	7,500	7,500	7,500
SOx (lb)	13,650	13,650	13,650	13,650
PM10 (lb)	13,650	13,650	13,650	13,650

Quantity of offsets required *

	1st	2nd	3rd	4th
VOC (lb)	0	0	0	0
CO (lb)	0	0	0	0
NOx (lb)	0	0	0	0
SOx (lb)	0	0	0	0
PM10 (lb)	0	0	0	0

* The engine meets the requirements of District Rule 3.4, Section 110 and is exempt from offset requirements.

MAJOR MODIFICATION

*Facility Total Potential to Emit**	*Major Source Thresholds*
36.93 TPY VOC	25 TPY VOC
83.38 TPY CO	100 TPY CO
78.73 TPY NOx	25 TPY NOx
1.10 TPY SOx	100 TPY SOx
9.87 TPY PM10	100 TPY PM10

* See attached quarterly PTE determination

*Last five year emission aggregate**	*Major Modification Thresholds*
0.79 TPY VOC	25 TPY VOC
2.46 TPY CO	100 TPY CO
13.14 TPY NOx	25 TPY NOx
0.01 TPY SOx	40 TPY SOx
1.03 TPY PM10	25 TPY PM10

* See attached 5 year aggregate worksheet

Result: The proposed modification is not a major modification

PUBLIC NOTICE

"Increase in historic potential to emit"	*Exemption level for notification*

384 lb VOC/quarter	7,500 lb VOC/quarter
882 lb CO/quarter	49,500 lb CO/quarter
4,056 lb NOx/quarter	7,500 lb NOx/quarter
-2 lb SOx/quarter	13,650 lb SOx/quarter
290 lb PM10/quarter	13,650 lb PM10/quarter

Result: Public notice is not required

1. Requirement:
The VOC emissions from the engine shall not exceed 49.1 lb/day, 409 lb/1st calendar quarter, 409 lb/2nd calendar quarter, 409 lb/3rd calendar quarter, 409 lb/4th calendar quarter, and 0.20 tons/calendar year. [District Rule 3.4/C-11-14]

2. Requirement:
The CO emissions from the engine shall not exceed 112.6 lb/day, 938 lb/1st calendar quarter, 938 lb/2nd calendar quarter, 938 lb/3rd calendar quarter, 938 lb/4th calendar quarter, and 0.47 tons/calendar year. [District Rule 3.4/C-11-14]

3. Requirement:
The NOx emissions from the engine shall not exceed 517.8 lb/day, 4,315 lb/1st calendar quarter, 4,315 lb/2nd calendar quarter, 4,315 lb/3rd calendar quarter, 4,315 lb/4th calendar quarter, and 2.16 tons/calendar year. [District Rule 3.4/C-11-14]

4. Requirement:
The SOx emissions from the engine shall not exceed 0.3 lb/day, 2 lb/1st calendar quarter, 2 lb/2nd calendar quarter, 2 lb/3rd calendar quarter, 2 lb/4th calendar quarter, and negligible tons/calendar year. [District Rule 3.4/C-11-14]

5. Requirement:
The PM10 emissions from the engine shall not exceed 37.0 lb/day, 308 lb/1st calendar quarter, 308 lb/2nd calendar quarter, 308 lb/3rd calendar quarter, 308 lb/4th calendar quarter, and 0.15 tons/calendar year. [District Rule 3.4/C-11-14]

6. Requirement:
The maximum diesel fuel consumption of the engine shall not exceed 1,104 gallons/day, 9,200 gallons/1st calendar quarter, 9,200 gallons/2nd calendar quarter, 9,200 gallons/3rd calendar quarter, 9,200 gallons/4th calendar quarter, and 9,200 gallons/calendar year. [District Rule 3.4/C-11-14]

7. Requirement:
The source is not allowed to operate the engine more than 200 hours per calendar year. [District Rule 3.4, Section 110.2/C-11-14]

8. Requirement:
The source is not allowed to operate the engine for the supplying of power to a serving utility for distribution on the grid. [District Rule 3.4, Section 110.3/C-11-14]

9. Requirement:
Other than for maintenance and testing purposes, the source is limited to operating the engine only for actual interruptions of electrical power by the serving utility. [District Rule 3.4, Section 110.4/C-11-14]

10. Requirement:
The Permit Holder shall not discharge into the atmosphere any air contaminant for a period or periods aggregating more than 3 minutes in any one hour which is:
a. As dark or darker in shade than No. 1 on the Ringelmann Chart; or
b. Greater than 20% opacity. [District Rule 3.4/C-11-14]

11. Requirement:
The engine shall only be fueled with CARB certified diesel fuel. [District Rule 3.4/C-11-14]

12. Requirement:
The Permit Holder shall install and maintain a non-resettable hour meter with a minimum display capability of 9,999 hours. [District Rule 3.4/C-11-14]

13. Requirement:
The Permit Holder shall not operate the IC engine more than 40 hours per calendar year for maintenance and testing purposes, and such operation shall be scheduled in cooperation with the District so as to limit air quality impact. [District Rule 3.4/C-11-14]

14. Requirement:
The owner or operator is required to maintain a monthly log that lists the following information: emergency hours of operation, maintenance and testing hours of operation, emission testing hours of operation, initial startup hours, and fuel use through fully documented purchase records. [Title 17 CCR Section 93115 and District Rule 3.4/C-11-14]

District Rule 3.8-Federal Operating Permits
This rule implements the requirements of Title V of the Federal CAA as amended in 1990 for permits to operate. Title V provides for the establishment of operating permit programs for sources which emit regulated air pollutants, including attainment and non-attainment pollutants.

The source is in compliance with the requirements of this rule. The source currently has one proposed change for which the District is issuing an ATC, which is being processed according to the District's Enhanced NSR guidelines in District Rule 3.4, Section 404.

In accordance with District Rule 3.8, section 409, a minor permit modification requires that the District provide written notice, proposed permit, and District Analysis to the USEPA, California Air Resources Board, all interested parties and agencies, and the source. The proposed permit will have the required regulatory review period.

Upon implementation of the District ATC into a PTO, the source may submit a written request for District action to amend the Title V operating permit pursuant to District Rule 3.8, section 404.1. Since the District ATC has been processed according to enhanced NSR guidelines, upon written request by the source, the District shall incorporate the changes into the Title V permit as an administrative permit amendment pursuant to District Rule 3.8, section 412.1.

1. Requirement:
All required records shall be retained for a minimum of five (5) years and shall be made available for District inspection upon request. [District Rule 3.8, section 302.6(b)/C-11-14]

District Rule 3.20-Ozone Transport Mitigation
This emissions unit is exempt from Rule 3.4, Sections 302 and 303. Therefore, per Section 110.3 of this rule, this application is exempt from the requirements of this rule.

New Source Performance Standards-40 CFR, Part 60, Subpart IIII (Stationary Compression Ignition Internal Combustion Engines)
The engine is not subject to the NSPS subpart based on the date of engine installation.

National Emission Standards for Hazardous Air Pollutants-40 CFR, Part 63, Subpart ZZZZ (Stationary Reciprocating Internal Combustion Engines)
The engine is located at an area source of HAP and is therefore subject the this NESHAP subpart. According to section 63.6590(b)(3) this engine does not have to meet the requirements of this subpart because it is an existing institutional emgency stationary engine.

Title 17 CCR Section 93115-Airborne Toxic Control Measure (ATCM) for Stationary Compression Ignition Engines
The regulation requires that the engine comply with the following conditions that will be placed on the permit under the authority of Rule 3.4, New Source Review:
- The engine owner or operator will only refuel the engine with California Air Resources Board certified diesel fuel.
- Per the ATCM amendments that became effective on May 19, 2011 (Section 93115.6 (b)(3)(A)(1)(a), owners or operators of in-use emergency engines located at healthcare facilities that have a PM emission factor greater than 0.40 g/bhp-hr, shall not operate the engine more than 40 hours per year for certification, maintenance, and testing purposes. The District has determined that the California State Prison - Solano qualifies as a healthcare facility becuase it provide healthcare services to inmates separate from the California Medical Facility.
- A non-resettable hour meter shall be installed with a minimum display capability of 9,999 hours.
- The owner or operator is required to maintain a monthly log that lists the following information: emergency hours of operation, maintenance and testing hours of operation, emission testing hours of operation, initial startup hours, and fuel use through fully documented purchase records.

District Risk Management Plan and Risk Assessment Guidelines (RMPRAG)
The engine was previously limited by the permit only in the hours for maintenance and testing operation with no limit for emergency use operation. Because the modified permit will now limit operation for any reason to 200 hours per year, the District expects there will not be an increase in emissions of any hazardous air pollutants. As allowed by the RMPRAG policy, no toxics review is required for the facility.

COMMENTS:
-BACT is not triggered
-T-BACT is not triggered
-NSR public notice is not required
-Offsets are not required
-Rule 3.20 mitigation is not required
-Title V regulatory notice is required

RECOMMENDATIONS: Perform the regulatory notice

Engineer: Tyler Pohlman **Date:** 7/18/11

Reviewed by: Susan K McLaughlin **Date:** 7/18/11

YOLO-SOLANO AIR QUALITY MANAGEMENT DISTRICT

1947 Galileo Ct., Suite #103, Davis, Ca 95616

New Source Review

Quarterly Potential To Emit Determination

NSR Version 8/13/97

Evaluation to be used on existing permits to obtain their quarterly PTE.

Engineer/Evaluator: Kyle Rohlfing

SIC Code # 9223

Facility Name: California Medical Facility, California State Prison - Solano, and Prison Industry Authority

Location: 1600 California Drive and 2100 Peabody Road; Vacaville, CA

Date of Initial Quarterly PTE Determination: 09/18/1998
Date of Previous Quarterly PTE Determination: 04/08/2011
Date of Current Quarterly PTE Determination: 06/20/2011

CURRENT APPLICATIONS: **ATC's** **PTO's**
C-11-13, C-11-14, C-11-15, C-11-16, C-11-17

	Current Permits:	VOC Emissions QTR 1 (lbs)	VOC QTR 2 (lbs)	VOC QTR 3 (lbs)	VOC QTR 4 (lbs)	VOC Annual (TPY)	CO Emissions QTR 1 (lbs)	CO QTR 2 (lbs)	CO QTR 3 (lbs)	CO QTR 4 (lbs)	CO Annual (TPY)	NOx Emissions QTR 1 (lbs)	NOx QTR 2 (lbs)	NOx QTR 3 (lbs)	NOx QTR 4 (lbs)	NOx Annual (TPY)	SOx Emissions QTR 1 (lbs)	SOx QTR 2 (lbs)	SOx QTR 3 (lbs)	SOx QTR 4 (lbs)	SOx Annual (TPY)	PM10 Emissions QTR 1 (lbs)	PM10 QTR 2 (lbs)	PM10 QTR 3 (lbs)	PM10 QTR 4 (lbs)	PM10 Annual (TPY)
Prison Industry Authority																											
Coating: Metal Parts	P-22-04(a)	577	588	618	618	1.20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	197	199	206	206	0.40
Coating: Metal Parts	P-41-88(a1)	1,067	1,053	1,108	1,062	2.10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	296	294	305	296	0.59
Combustion Emission Cap	CAP	22	23	23	23	0.05	344	348	351	351	0.70	409	414	418	418	0.83	2	2	3	3	0.00	31	31	32	32	0.06
Enclosed Steel Shot Blasting	P-42-88	0	0	0	0	0.00	0	0	0	0	0.00	0	0	0	0	0.00	0	0	0	0	0.00	5	5	5	5	0.01
Letterpress and Silkscreen Printing	P-77-92(a)	130	130	130	130	0.24	0	0	0	0	0.00	0	0	0	0	0.00	0	0	0	0	0.00	0	0	0	0	0.00
	C-10-123	130	130	130	130	0.24	0	0	0	0	0.00	0	0	0	0	0.00	0	0	0	0	0.00	0	0	0	0	0.00
Institutional Laundry	P-55-97	34	34	34	34	0.06	135	135	135	135	0.23	643	643	643	643	1.11	4	4	4	4	0.01	77	77	77	77	0.13
Coating: Automotive	P-133-95	2,153	2,153	2,153	2,153	5.23	0	0	0	0	0.00	0	0	0	0	0.00	0	0	0	0	0.00	306	306	306	306	0.71
Coating: Automotive	P-53-88(a)	1,619	1,637	1,655	1,655	2.17	0	0	0	0	0.00	0	0	0	0	0.00	0	0	0	0	0.00	210	213	215	215	0.28
PIA Pre-Project SSPE (lb/year)		5,603	5,619	5,722	5,676	22,100	479	483	486	486	1,854	1,052	1,057	1,061	1,061	3,879	6	6	6	6	30	1,122	1,126	1,146	1,137	4,375
PIA Post-Project SSPE (lb/year)		5,602	5,618	5,721	5,675	22,100	479	483	486	486	1,854	1,052	1,057	1,061	1,061	3,879	6	6	6	6	30	1,122	1,126	1,146	1,137	4,375
No Emergency Equipment	-																									
PIA Pre-Project PIA Total PTE		5,603	5,619	5,722	5,676	11.05	479	483	486	486	0.93	1,052	1,057	1,061	1,061	1.94	6	6	6	6	0.01	1,122	1,126	1,146	1,137	2.19
PIA Post-Project PIA Total PTE		5,602	5,618	5,721	5,675	11.05	479	483	486	486	0.93	1,052	1,057	1,061	1,061	1.94	6	6	6	6	0.01	1,122	1,126	1,146	1,137	2.19
PIA Policy 25 Post-Project PIA Total PTE		5,602	5,618	5,721	5,675	11.05	479	483	486	486	0.93	1,052	1,057	1,061	1,061	1.94	6	6	6	6	0.01	1,122	1,126	1,146	1,137	2.19
California State Prison - Solano																										
Coating: Wood Products	P-3-90	1,040	1,040	1,040	1,040	0.52	0	0	0	0	0.00	0	0	0	0	0.00	0	0	0	0	0.00	0	0	0	0	0.00
Woodworking	P-35-92	0	0	0	0	0.00	0	0	0	0	0.00	0	0	0	0	0.00	0	0	0	0	0.00	185	187	189	189	0.25
Woodworking	P-36-92	0	0	0	0	0.00	0	0	0	0	0.00	0	0	0	0	0.00	0	0	0	0	0.00	185	187	189	189	0.28
Coating: Metal Parts	P-167-95	819	819	819	819	0.46	0	0	0	0	0.00	0	0	0	0	0.00	0	0	0	0	0.00	27	27	27	27	0.02
CSP Pre-Project SSPE (lb/year)		1,859	1,859	1,859	1,859	1,960	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	397	401	405	405	1,100
CSP Post-Project SSPE (lb/year)		1,859	1,859	1,859	1,859	1,960	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	397	401	405	405	1,100
Emergency IC Engine (960 BHP)	P-27-95(a)	103	103	103	103	0.05	847	847	847	847	0.42	5,854	5,854	5,854	5,854	2.93	2	2	2	2	0.00	348	348	348	348	0.17
Emergency IC Engine (940 BHP)	P-28-95(a)	409	409	409	409	0.20	938	938	938	938	0.47	4,315	4,315	4,315	4,315	2.16	2	2	2	2	0.00	308	308	308	308	0.15
Emergency IC Engine (960 BHP)	P-29-95(a)	103	103	103	103	0.05	847	847	847	847	0.42	5,854	5,854	5,854	5,854	2.93	2	2	2	2	0.00	348	348	348	348	0.17
Emergency IC Engine (940 BHP)	P-30-95(a)	409	409	409	409	0.20	938	938	938	938	0.47	4,315	4,315	4,315	4,315	2.16	2	2	2	2	0.00	308	308	308	308	0.15
Emergency IC Engine (750 BHP)	P-31-95(a)	356	356	356	356	0.18	816	816	816	816	0.41	3,752	3,752	3,752	3,752	1.88	2	2	2	2	0.00	268	268	268	268	0.13
Emergency IC Engine (415 BHP)	P-64-04	19	19	19	19	0.01	83	83	83	83	0.04	805	805	805	805	0.40	34	34	34	34	0.00	13	13	13	13	0.01
Emergency IC Engine (165 BHP)	P-51-10	83	83	83	83	0.04	65	65	65	65	0.03	271	271	271	271	0.14	0	0	0	0	0.00	16	16	16	16	0.01
CSP Pre-Project PIA Total PTE		3,342	3,342	3,342	3,342	1.72	4,534.07	4,534.07	4,534.07	4,534.07	2.27	25,165.90	25,165.90	25,165.90	25,165.90	12.58	45.44	45.44	45.44	45.44	0.01	2,006.44	2,010.49	2,014.54	2,014.54	1.36
CSP Post-Project PIA Total PTE		3,342	3,342	3,342	3,342	1.72	4,534.07	4,534.07	4,534.07	4,534.07	2.27	25,165.90	25,165.90	25,165.90	25,165.90	12.58	45.44	45.44	45.44	45.44	0.01	2,006.44	2,010.49	2,014.54	2,014.54	1.36
CSP Policy 25 Post-Project PIA Total PTE		1,859	1,859	1,859	1,859	0.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	396.50	400.55	404.60	404.60	0.55
California Medical Facility																										
Coating: Metal Parts & Wood Products	P-72-88	4,069	4,069	4,069	4,069	8.10	0	0	0	0	0.00	0	0	0	0	0.00	0	0	0	0	0.00	0	0	0	0	0.00
Non-Retail GDF	P-42-90(a3)	55	55	55	55	0.11	0	0	0	0	0.00	0	0	0	0	0.00	0	0	0	0	0.00	0	0	0	0	0.00
Woodworking	P-37-92	0	0	0	0	0.00	0	0	0	0	0.00	0	0	0	0	0.00	0	0	0	0	0.00	605	605	605	605	1.20
IC Engine Co-Generation	P-130-95(a)	6,571	6,644	6,717	6,717	12.41	20,802	21,033	21,265	21,265	39.29	20,505	20,733	20,961	20,961	38.73	310	314	317	317	0.59	172	174	176	176	0.31
Boiler (44.8 MMBtu/hr)	P-9-00	532	538	544	544	1.08	7,510	7,510	7,510	7,510	12.70	4,306	4,336	4,336	4,336	6.86	58	59	59	59	0.12	735	744	752	752	1.49
Boiler (44.8 MMBtu/hr)	P-10-00	532	538	544	544	1.08	7,510	7,510	7,510	7,510	12.70	4,306	4,336	4,336	4,336	6.86	58	59	59	59	0.12	735	744	752	752	1.49
Boiler (39.5 MMBtu/hr)	P-11-00	469	474	480	480	0.95	5,669	5,722	5,776	5,776	11.25	3,797	3,823	3,849	3,849	6.04	51	52	52	52	0.10	648	656	663	663	1.31

Boiler (12.6 MMBtu/hr)	P-12-00	150	151	153	153	0.30	2,336	2,354	2,371	2,371	3.85	1,221	1,230	1,238	1,238	1.93	16	17	17	17	0.03	207	209	211	211	0.42
CMF Pre-Project SSPE (lb/year)		12,378	12,469	12,562	12,562	48,060	43,827	44,129	44,432	44,432	159,580	34,135	34,458	34,720	34,720	120,840	493	501	504	504	1,920	3,102	3,132	3,159	3,159	12,440
CMF Post-Project SSPE (lb/year)		12,378	12,469	12,562	12,562	48,060	43,827	44,129	44,432	44,432	159,580	34,135	34,458	34,720	34,720	120,840	493	501	504	504	1,920	3,102	3,132	3,159	3,159	12,440
Emergency IC Engine (429 BHP)	P-131-95	9	9	9	9	0.00	18	18	18	18	0.01	99	100	100	100	0.05	2	2	2	2	0.00	9	9	9	9	0.00
Emergency IC Engine (469 BHP)	P-132-95	18	18	18	18	0.01	40	40	40	40	0.02	189	191	193	193	0.10	3	3	3	3	0.00	9	9	9	9	0.01
Emergency IC Engine (375 BHP)	P-203-95	15	15	15	15	0.01	36	36	36	36	0.02	165	165	165	165	0.08	5	5	5	5	0.00	10	10	10	10	0.01
Emergency IC Engine (2847 BHP)	P-7-98(a)	163	163	163	163	0.08	439	439	439	439	0.22	6,854	6,854	6,854	6,854	3.43	230	230	230	230	0.12	129	129	129	129	0.06
Emergency IC Engine (1102 BHP)	P-19-08	58	58	58	58	0.03	30	30	30	30	0.13	262	262	262	262	0.13	0	0	0	0	0.00	5	5	5	5	0.02
CMF Pre-Project PIA Total PTE		12,641	12,732	12,825	12,825	24.16	44,390	44,692	44,995	44,995	80.19	41,704	42,030	42,294	42,294	64.21	733	741	744	744	1.08	3,264	3,294	3,321	3,321	6.32
CMF Post-Project PIA Total PTE		12,641	12,732	12,825	12,825	24.16	44,390	44,692	44,995	44,995	80.19	41,704	42,030	42,294	42,294	64.21	733	741	744	744	1.08	3,264	3,294	3,321	3,321	6.32
CMF Policy 25 Post-Project PIA Total PTE		12,378	12,469	12,562	12,562	24.03	43,827	44,129	44,432	44,432	79.79	34,135	34,458	34,720	34,720	60.42	493	501	504	504	0.96	3,102	3,132	3,159	3,159	6.22

	VOC Emissions					CO Emissions					NOx Emissions					SOx Emissions					PM10 Emissions				
Current Permits:	QTR 1 (lbs)	QTR 2 (lbs)	QTR 3 (lbs)	QTR 4 (lbs)	Annual (TPY)	QTR 1 (lbs)	QTR 2 (lbs)	QTR 3 (lbs)	QTR 4 (lbs)	Annual (TPY)	QTR 1 (lbs)	QTR 2 (lbs)	QTR 3 (lbs)	QTR 4 (lbs)	Annual (TPY)	QTR 1 (lbs)	QTR 2 (lbs)	QTR 3 (lbs)	QTR 4 (lbs)	Annual (TPY)	QTR 1 (lbs)	QTR 2 (lbs)	QTR 3 (lbs)	QTR 4 (lbs)	Annual (TPY)
FACILITY Pre-Project SSPE (lb/year)	19,840	19,947	20,143	20,097	72,120	44,306	44,612	44,918	44,918	161,434	35,187	35,515	35,781	35,781	124,719	499	507	510	510	1,950	4,621	4,658	4,709	4,700	17,915
FACILITY Post-Project SSPE (lb/year)	19,839	19,946	20,142	20,096	72,120	44,306	44,612	44,918	44,918	161,434	35,187	35,515	35,781	35,781	124,719	499	507	510	510	1,950	4,621	4,658	4,709	4,700	17,915
Emergecy Equipment Post-Project PTE (lb/year)	1,746	1,746	1,746	1,746	1,746	5,098	5,098	5,098	5,098	5,325	32,735	32,738	32,740	32,740	32,740	286	286	286	286	254	1,772	1,772	1,772	1,772	1,817
FACILITY Pre-Project Total PTE	21,586	21,693	21,889	21,843	36.93	49,403	49,709	50,016	50,016	83.38	67,922	68,253	68,521	68,521	78.73	785	793	796	796	1.10	6,393	6,430	6,481	6,472	9.87
FACILITY Post-Project Total PTE	21,586	21,693	21,889	21,843	36.93	49,403	49,709	50,016	50,016	83.38	67,922	68,253	68,521	68,521	78.73	785	793	796	796	1.10	6,393	6,430	6,481	6,472	9.87
FACILITY Policy 25 Post-Project Total PTE	19,839	19,946	20,142	20,096	36.06	44,306	44,612	44,918	44,918	80.72	35,187	35,515	35,781	35,781	62.36	499	507	510	510	0.97	4,621	4,658	4,709	4,700	8.96

Facility Quarterly Potential to Emit

	Quarter #1	Quarter #2	Quarter #3	Quarter #4	Yearly
VOC	19,839	19,946	20,142	20,096	36.93
CO	44,306	44,612	44,918	44,918	83.38
NOx	35,187	35,515	35,781	35,781	78.73
SOx	499	507	510	510	1.10
PM10	4,621	4,658	4,709	4,700	9.87

OFFSET THRESHOLDS

(lb/qtr)
7,500
49,500
7,500
13,650
13,650

PTE Comparison to NSR Triggers

Quarter #1	Quarter #2	Quarter #3	Quarter #4
Above	Above	Above	Above
Below	Below	Below	Below
Above	Above	Above	Above
Below	Below	Below	Below
Below	Below	Below	Below

Post-project Stationary Source Potential to Emit (SSPE)

	Yearly
VOC	72,120
NOx	124,719

MITIGATION THRESHOLDS

(lb/year)
20,000
20,000

SSPE Comparison to Rule 3.20 Triggers

Annual
Above
Above

COMMENTS: This quarterly PTE evaluation was updated for the Prison Industry Authority ATC application C-10-123 (Graphic Arts Operation).

Engineer: Kyle Kohlfing **Date:** 7/18/11

Reviewed by: Susan K. McLaughlin **Date:** 7/18/11

YOLO-SOLANO AIR QUALITY MANAGEMENT DISTRICT
1947 Galileo Ct., Suite #103, Davis, Ca 95616

New Source Review
Last Five Year Activity

Evaluator: Kyle Rohlfing

Facility Name: CMF, CSP, and PIA

Location: 1600 California Drive and 2100 Peabody Road; Vacaville, CA

SIC Code # 9223
Date of Initial Determination: 03/21/2003
Date of Previous Determination: 04/18/2011
Date of Current Determination: 06/20/2011

Facility	Process	Issued Permits	Date PTO Issued	ATC	Date ATC Issued	VOC (tpy)	CO (tpy)	NOx (tpy)	SOx (tpy)	PM10 (tpy)
CSP	Coating: Automotive	P-53-88	-	-	-	2.88	0.00	0.00	0.00	0.06
PIA	Metal Grinding	P-48-97	11/05/1997	C-97-47	06/05/1997	0.00	0.00	0.00	0.00	0.06
CMF	Non-Retail GDF	P-42-90(a)	12/22/1997	C-97-112	11/17/1997	0.05	0.00	0.00	0.00	0.00
PIA	Institutional Laundry	P-55-97	12/22/1997	A-54-97	12/22/1997	0.06	0.23	1.11	0.01	0.13
PIA	Coating: Metal Parts	P-41-88(a)	10/06/1999	C-99-80	07/28/1999	0.68	0.34	1.60	0.01	1.05
CMF	Boiler (44.8 MMBtu/hr) [a]	P-9-00	05/26/2000	C-99-102	01/26/2000	0.00	0.00	0.00	0.00	0.00
CMF	Boiler (44.8 MMBtu/hr) [a]	P-10-00	05/26/2000	C-99-103	01/26/2000	0.00	0.00	0.00	0.00	0.00
CMF	Boiler (39.5 MMBtu/hr) [a]	P-11-00	05/26/2000	C-99-104	01/26/2000	0.00	0.00	0.00	0.00	0.00
CMF	Boiler (12.6 MMBtu/hr) [b]	P-12-00	05/26/2000	C-99-105	01/26/2000	0.00	0.00	0.00	0.00	0.00
CMF	IC Engine Co-Generation	P-130-95(a)	03/27/2003	C-03-46	03/25/2003	0.00	10.33	0.00	0.00	0.04
CMF	Emergency IC Engine	P-7-98(a)	04/24/2003	C-03-21	03/07/2003	0.01	0.06	2.68	0.11	0.01
CSP	Emergency IC Engine	P-64-04	09/28/2004	C-02-360	05/20/2003	0.01	0.04	0.40	0.02	0.01
PIA	Coating: Metal Parts [c]	P-41-88(a1)	11/12/2004	C-02-142	09/29/2003	0.00	0.36	0.00	0.00	0.00
PIA	Coating: Metal Parts [c]	P-22-04	03/26/2004	C-03-75	09/29/2003	-	-	-	-	-
CMF	Non-Retail GDF	P-42-90(a1)	09/09/2005	C-05-35	06/08/2005	0.02	0.00	0.00	0.00	0.00
PIA	Metal Grinding [d]	P-48-97(a)	-	C-05-93	CANCELED	-	-	-	-	-
PIA	Letterpress and Silkscreen	P-77-92(a)	-	C-06-64	05/21/2007	0.00	0.00	0.00	0.00	0.00
CMF	Emergency IC Engine	P-70-07	-	C-07-124	11/02/2007	0.03	0.13	1.09	0.00	0.02
PIA	Mcoating: Metal Parts	-	-	C-07-176	08/05/2008	0.00	0.00	0.00	0.00	0.00
CSP	Emergency IC Engine	-	-	C-08-258	01/07/2010	0.03	0.14	0.00	0.01	0.00
CMF	Non-Retail GDF	P-42-90(a2)	01/07/2010	C-09-53	03/24/2009	0.00	0.00	0.00	0.00	0.00
CMF	Non-Retail GDF	P-42-90(a3)	06/03/2010	C-09-159	02/01/2010	0.04	0.00	0.00	0.00	0.00
PIA	Coating: Automotive	P-53-88(a)	12/20/2010	C-10-30	10/29/2010	0.00	0.00	0.00	0.00	0.22
PIA	Letterpress and Silkscreen	P-77-92(a1)	-	C-10-123	PENDING	0.00	0.00	0.00	0.00	0.00
CSP	Emergency IC Engine	P-27-95(a)	-	C-11-13	PENDING	0.05	0.42	2.93	0.00	0.17
CSP	Emergency IC Engine	P-28-95(a)	-	C-11-14	PENDING	0.20	0.47	2.16	0.00	0.15
CSP	Emergency IC Engine	P-29-95(a)	-	C-11-15	PENDING	0.05	0.42	2.93	0.00	0.17
CSP	Emergency IC Engine	P-30-95(a)	-	C-11-16	PENDING	0.20	0.47	2.16	0.00	0.15
CSP	Emergency IC Engine	P-31-95(a)	-	C-11-17	PENDING	0.18	0.41	1.88	0.00	0.13
					TOTAL	0.79	2.46	13.14	0.01	1.03

[a] Split of P-8-72(a) into C-99-102, C-99-103, and C-99-104 with no emission aggregate.

[b] PTO P-89-89 replaced with equipment authorized by C-99-105 with no emission aggregate.

[c] Split of P-41-88(a) into C-02-142 and C-03-75. Because C-02-142 and C-03-75 are part of a cap, the emission aggregate represented under C-02-142.

[d] ATC C-05-93 and PTO P-48-97 canceled on 3/8/2006; operation deemed exempt from air quality permitting.

COMMENTS: These permits are sorted by the ATC issuance dates. According to Rule 3.4 Section 221, a major modification is calculated based on all creditable increases and decreases from the source over the period of five consecutive years before the application, including the calendar year of the most recent application. Since ATC applications C-11-13 through C-11-17 were received on January 7, 2011, the applicable 5-year period ranges from January 2006 to January 2011.

Engineer: Kyle Rohlfing **Date:** 7/12/11

Reviewed by: Susan K McLaughlin **Date:** 7/18/11